

Gregg Thompson

Urban Conservation Specialist

Association of Metropolitan Soil and Water Conservation Districts

Anoka – Carver – Dakota – Hennepin - Ramsey – Scott – Washington

Provide education and technical assistance to 7-county metro area government units and residents in:

- **erosion-control & water-quality buffers**
- **urban runoff reduction**
- **invasive species control**
- **wildlife habitat development**
- **backyard conservation**

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metroswcd@isd.net

Funding, oversight and guidance:

Association of Metropolitan Soil and Water Conservation Districts

Anoka – Carver – Dakota – Hennepin
Ramsey – Scott – Washington

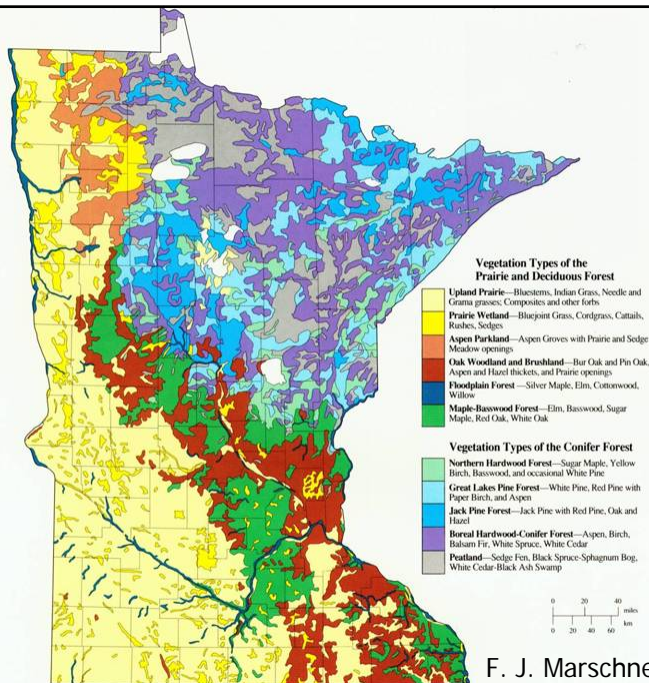
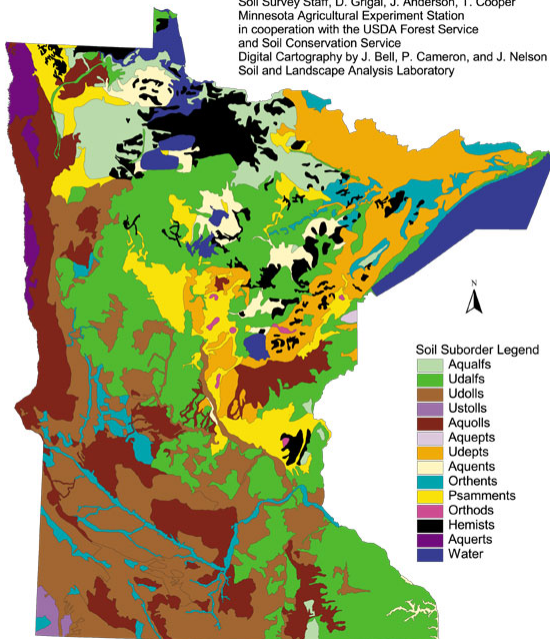
Additional program funding (through Contribution Agreement):



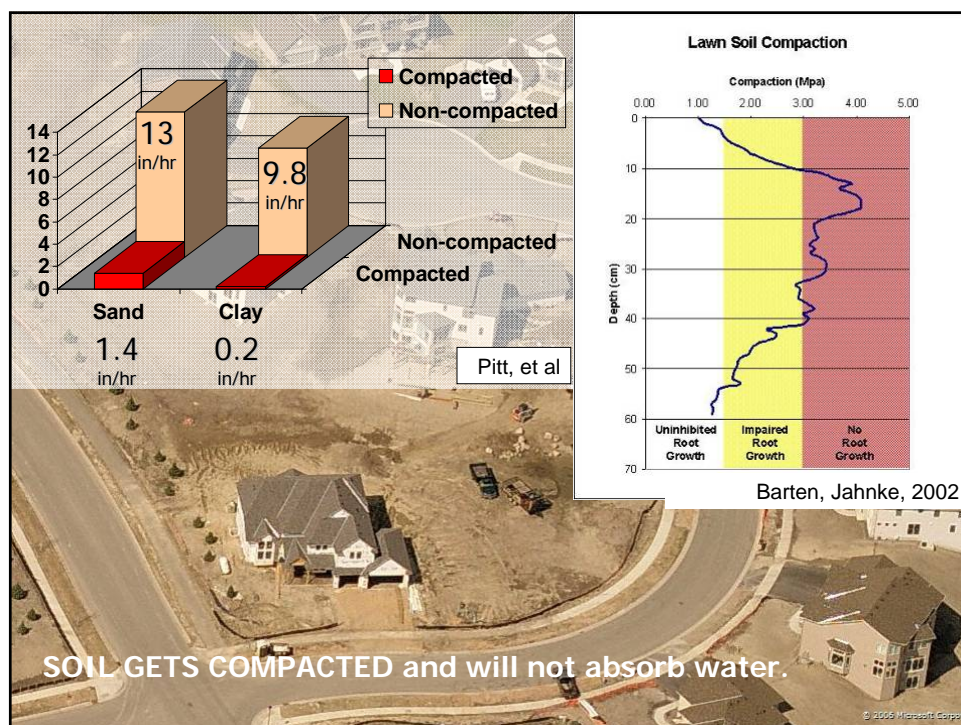
U.S. Department of Agriculture
Natural Resources Conservation Service

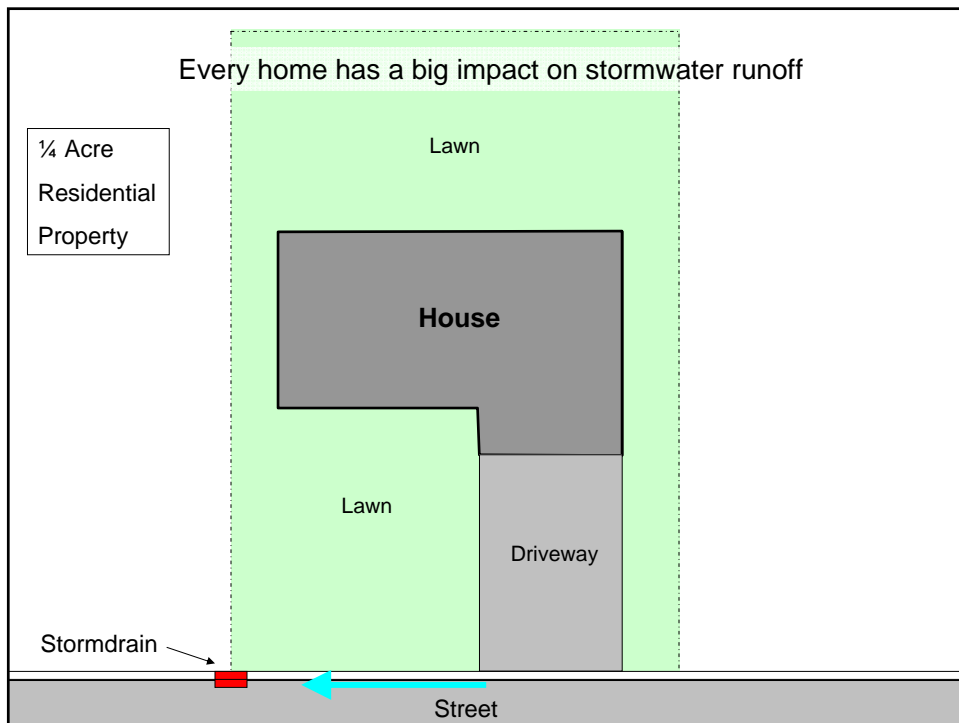
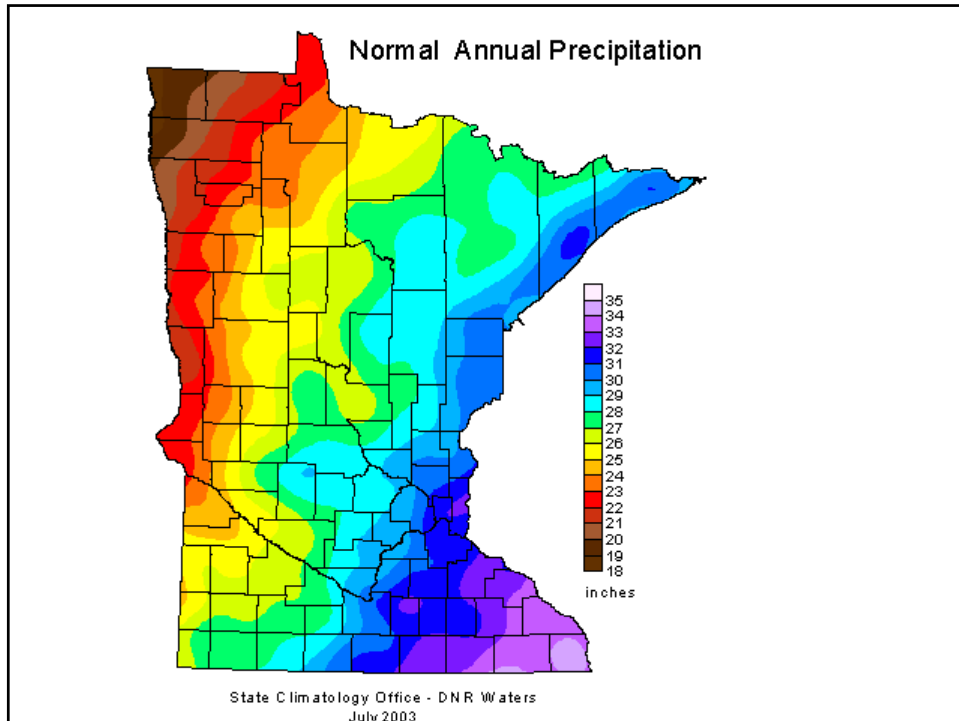
Soil Suborders of Minnesota

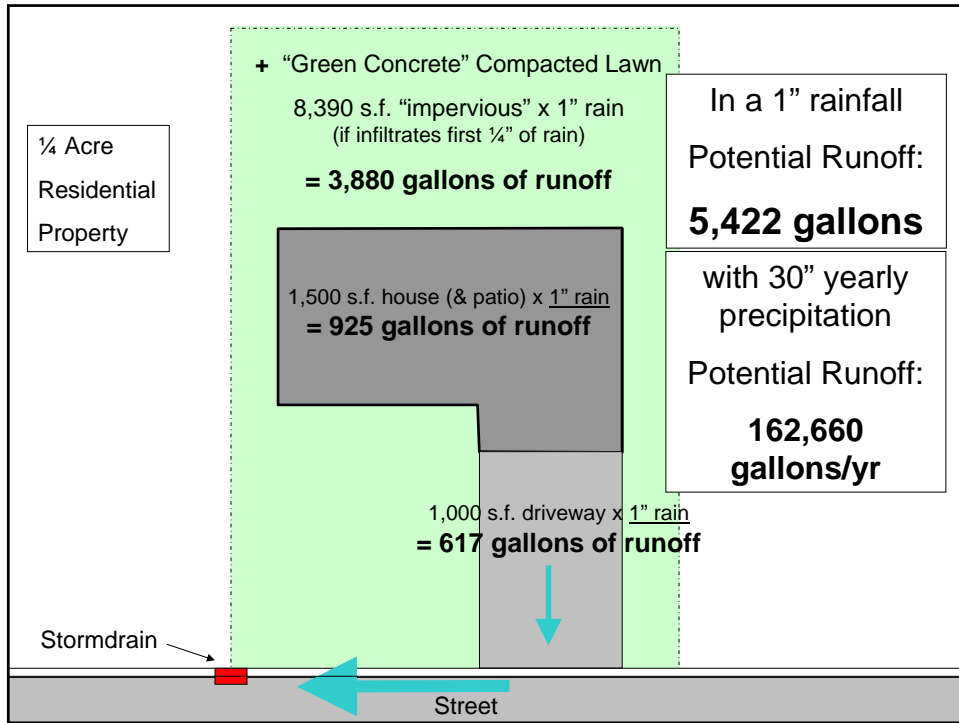
Soil Survey Staff, D. Grigal, J. Anderson, T. Cooper
Minnesota Agricultural Experiment Station
in cooperation with the USDA Forest Service
and Soil Conservation Service
Digital Cartography by J. Bell, P. Cameron, and J. Nelson
Soil and Landscape Analysis Laboratory



F. J. Marschner
The Original Vegetation of Minnesota info
from Public Land Survey: 1847-1907





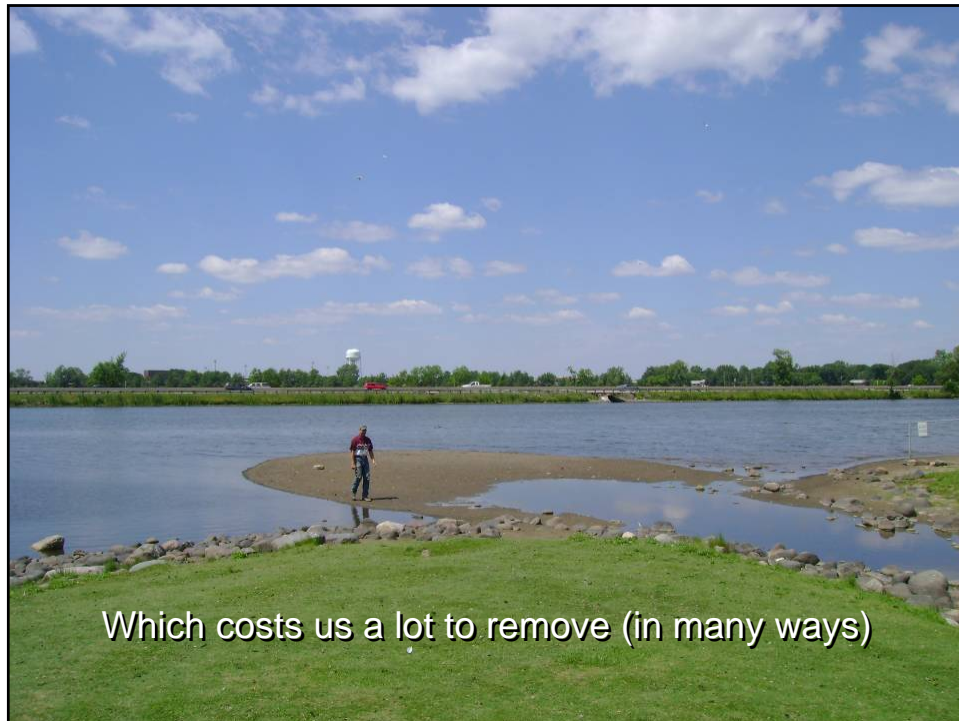


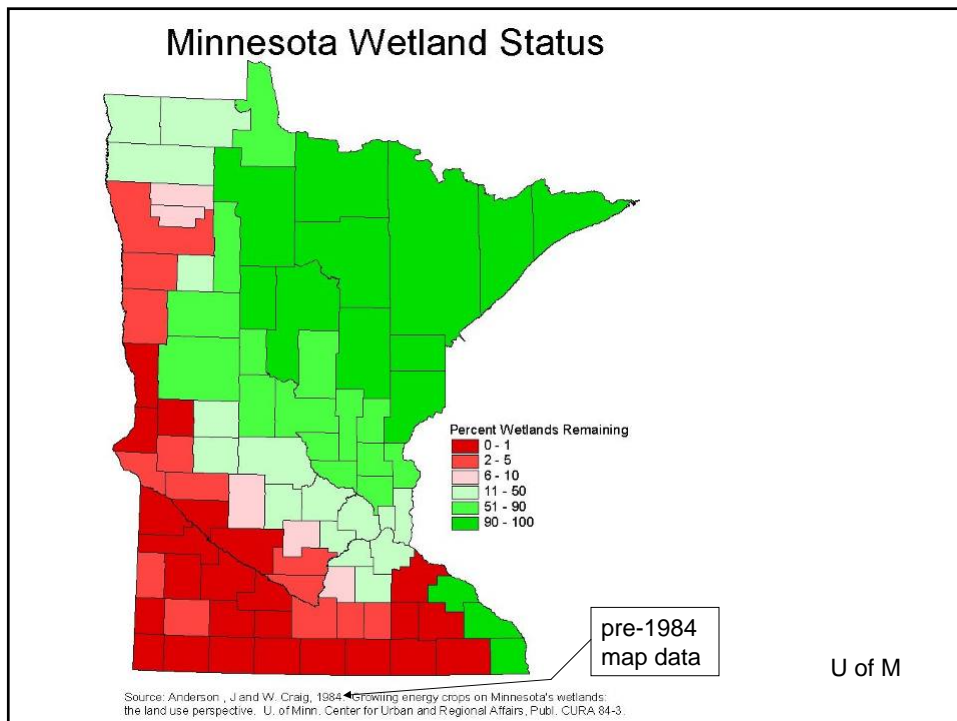
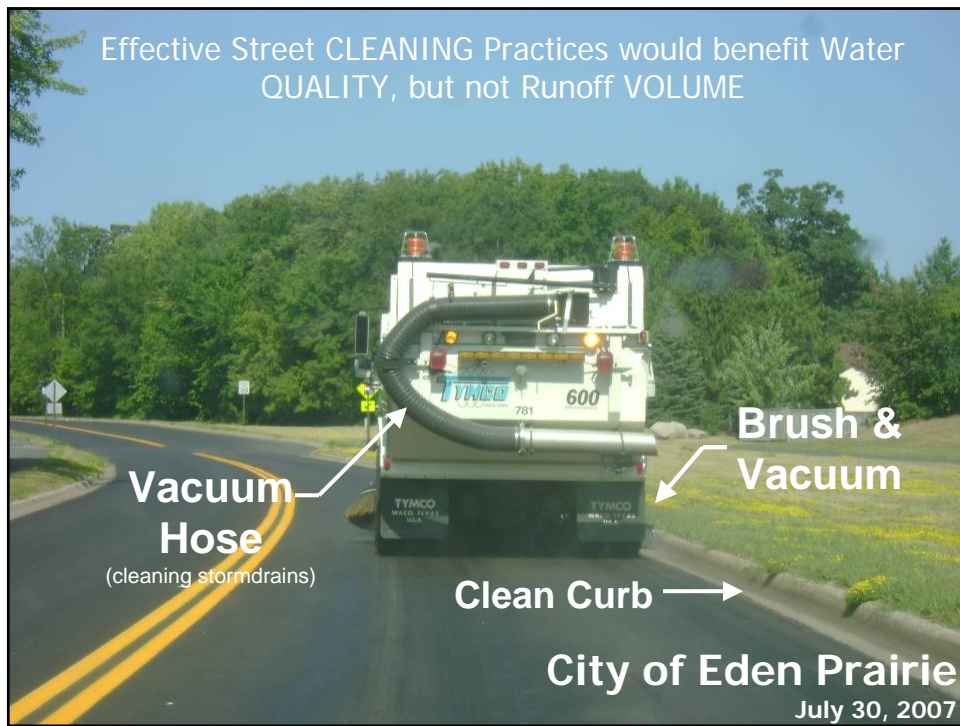


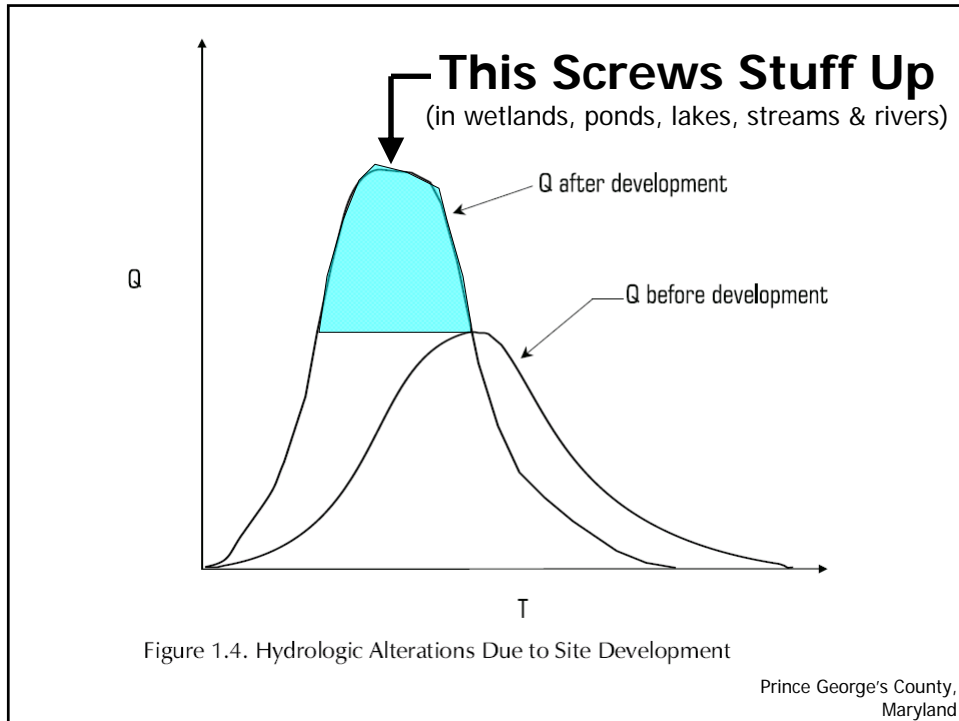


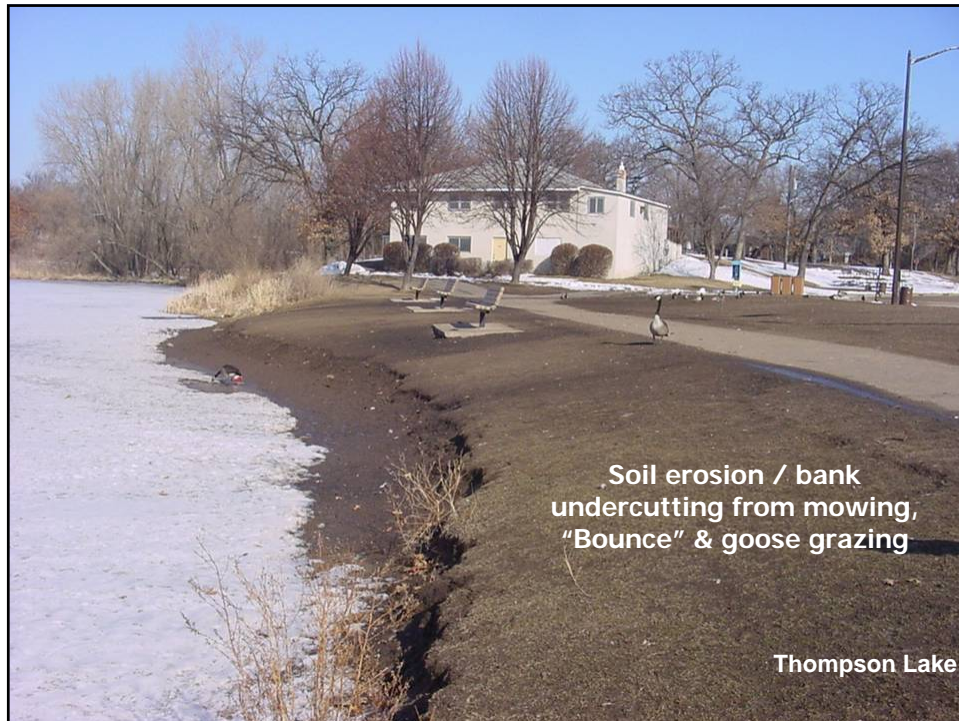


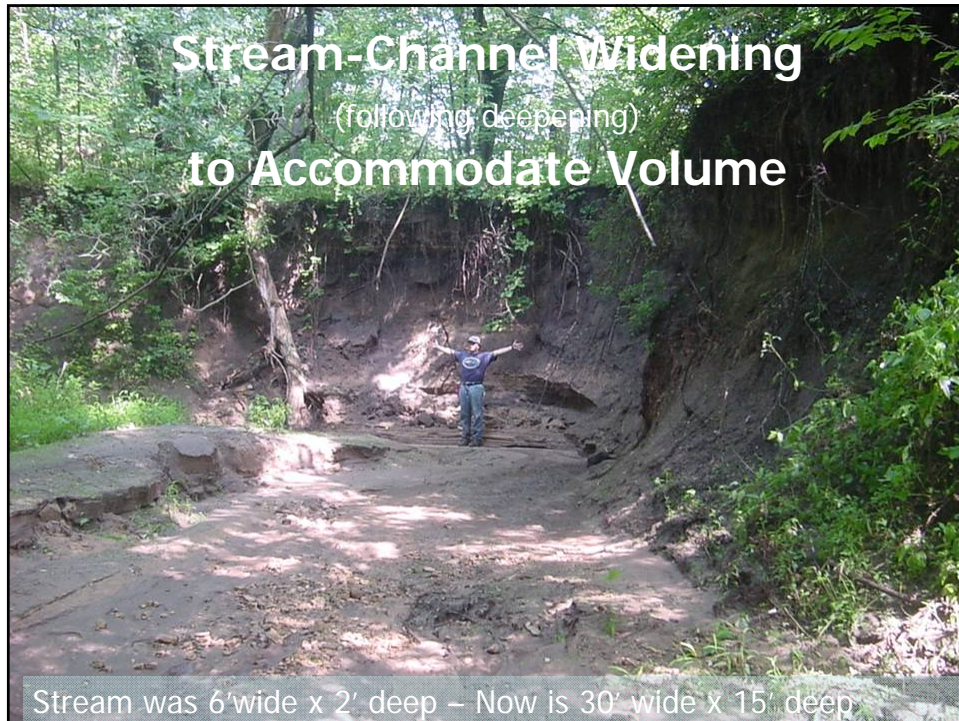












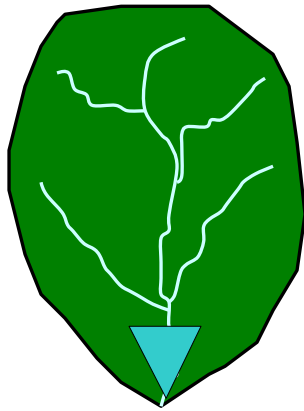
Low-Impact Development

- Decreasing Amount of Runoff (Volume)
- Treating Runoff at the Source (Quality)

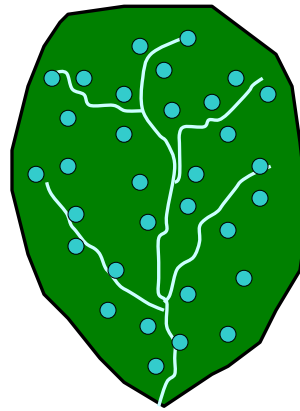
Decreasing Runoff Volume – Small-Scale Controls

- | | |
|---|---|
| <ul style="list-style-type: none"> • Bioretention / Rain Gardens • Strategic Grading • Site Finger Printing • Conservation • Flatter Wider Swales • Amended Soils • Long Flow Paths • Tree / Shrub Depression • Turf Depression • Landscape Island Storage • Rooftop Detention /Retention • Disconnection* • Parking Lot / Street Storage • Smaller Culverts, Pipes & Inlets | <ul style="list-style-type: none"> • Alternative Surfaces • Reduce Impervious Surface • Surface Roughness Technology • Rain Barrels / Cisterns / Water Use • Catch Basins / Seepage Pits • Sidewalk Storage • Vegetative Swales, Buffers & Strips • Infiltration Swales & Trenches • Eliminate Curb and Gutter • Shoulder Vegetation • Maximize Sheet flow • Maintain Drainage Patterns • Reforestation • Pollution Prevention |
|---|---|

Centralized vs Distributed Stormwater Controls

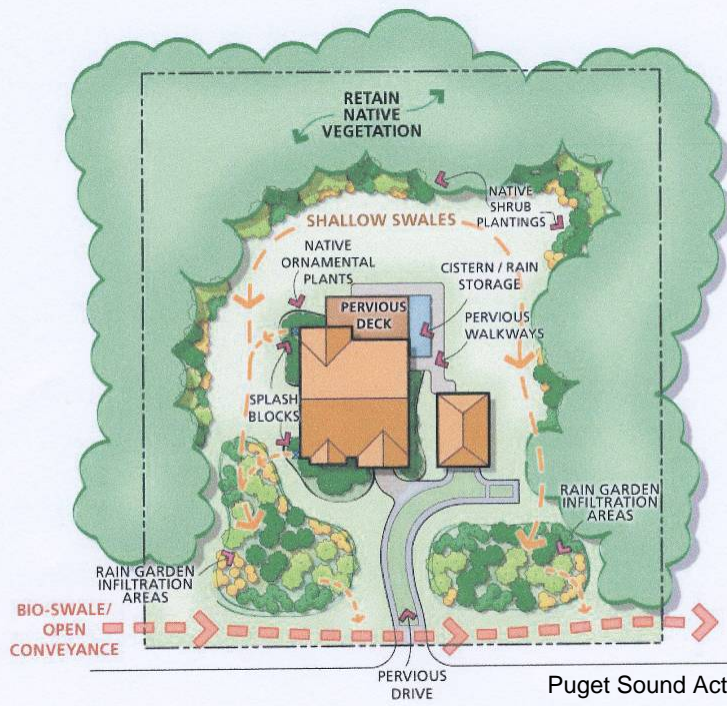


'Centralized'
Traditional Technique

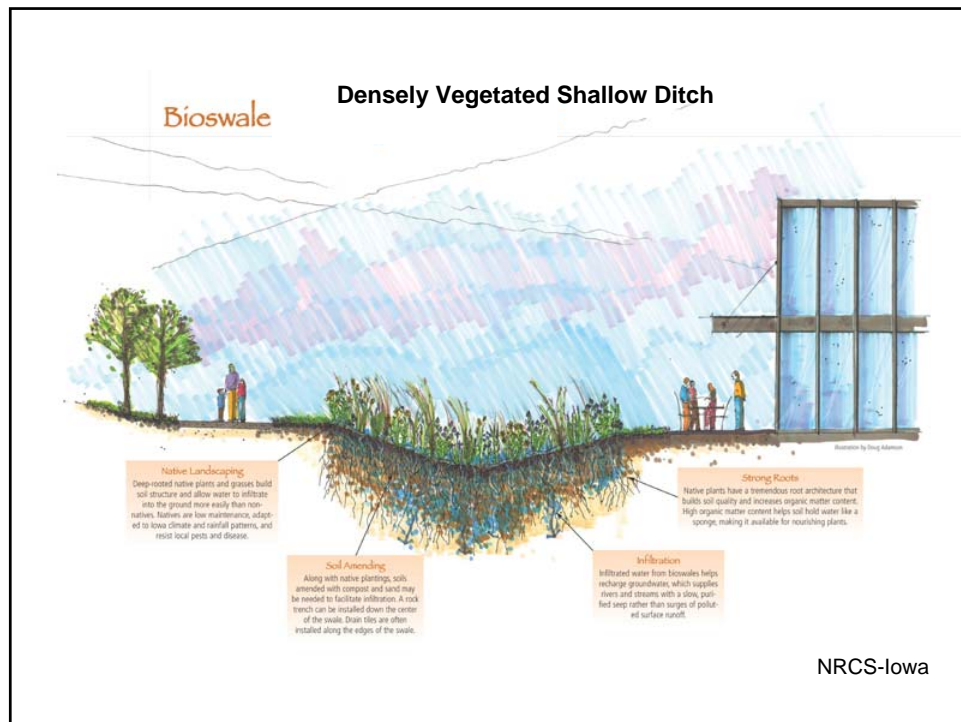


'Distributed'
Stormwater Features

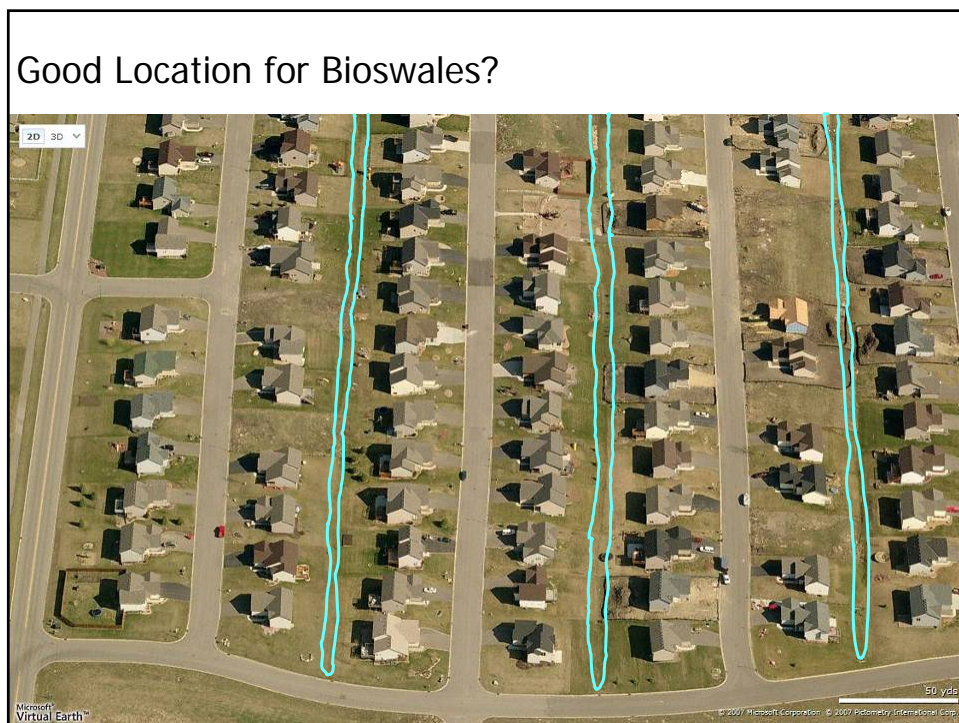
URS Corp.

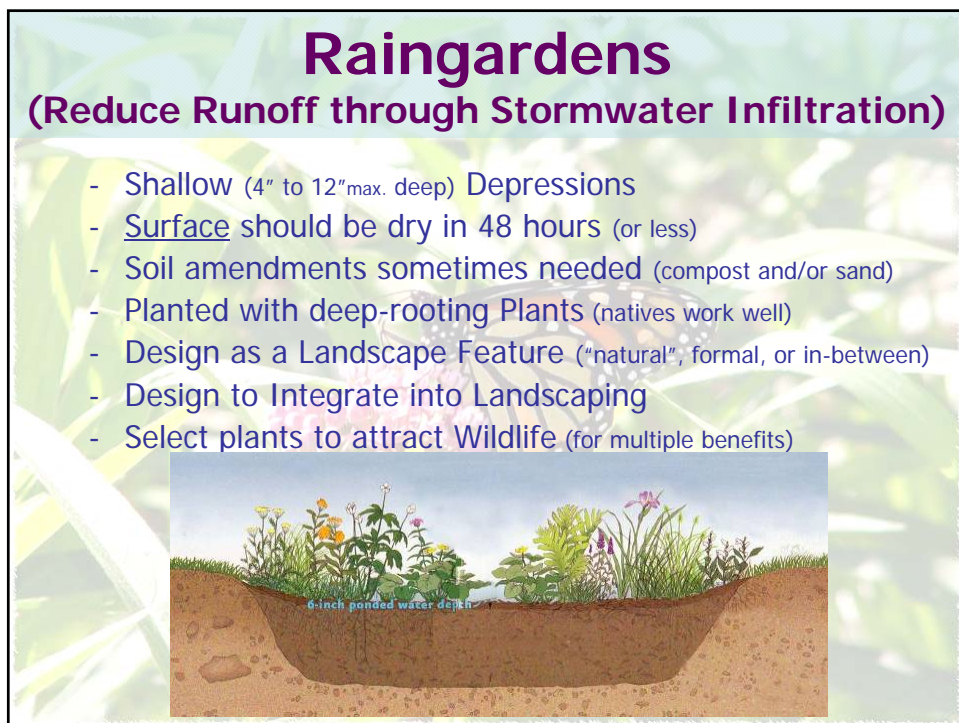
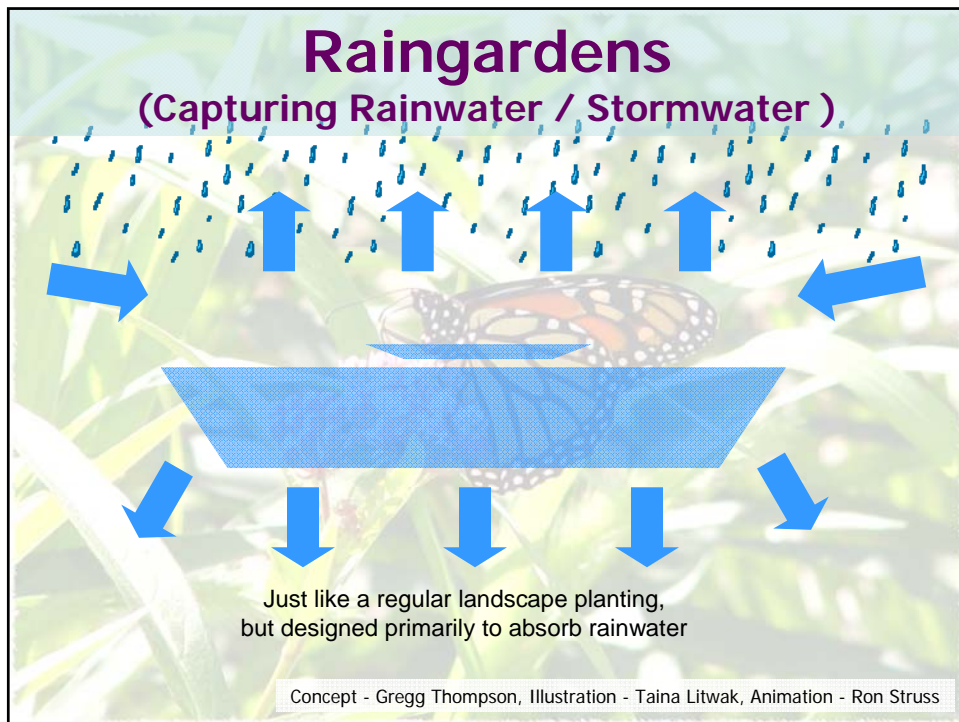


Puget Sound Action Team

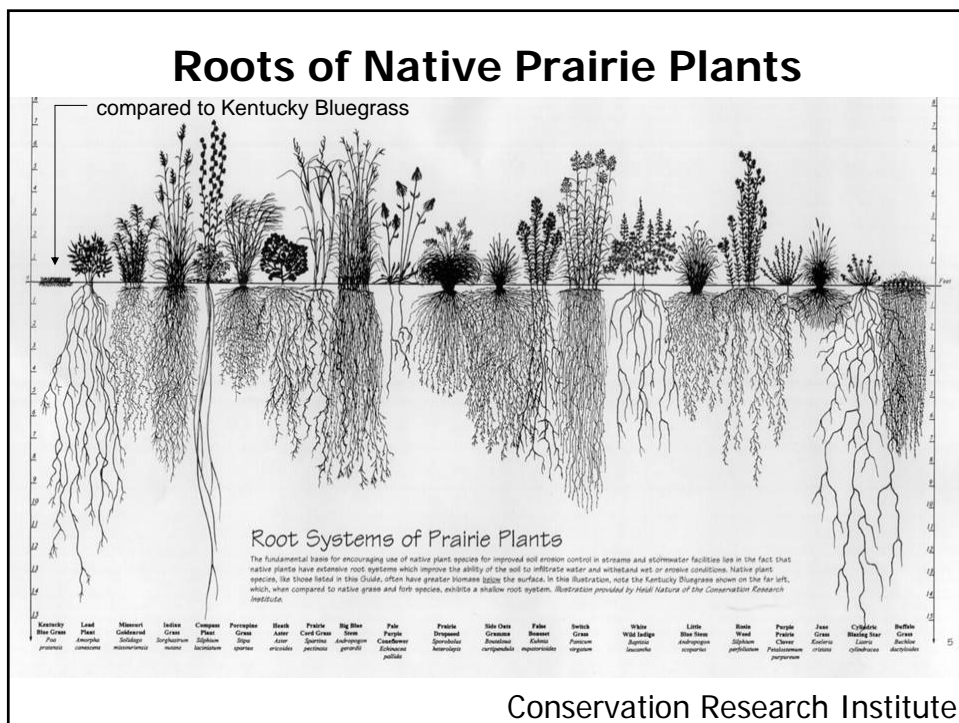
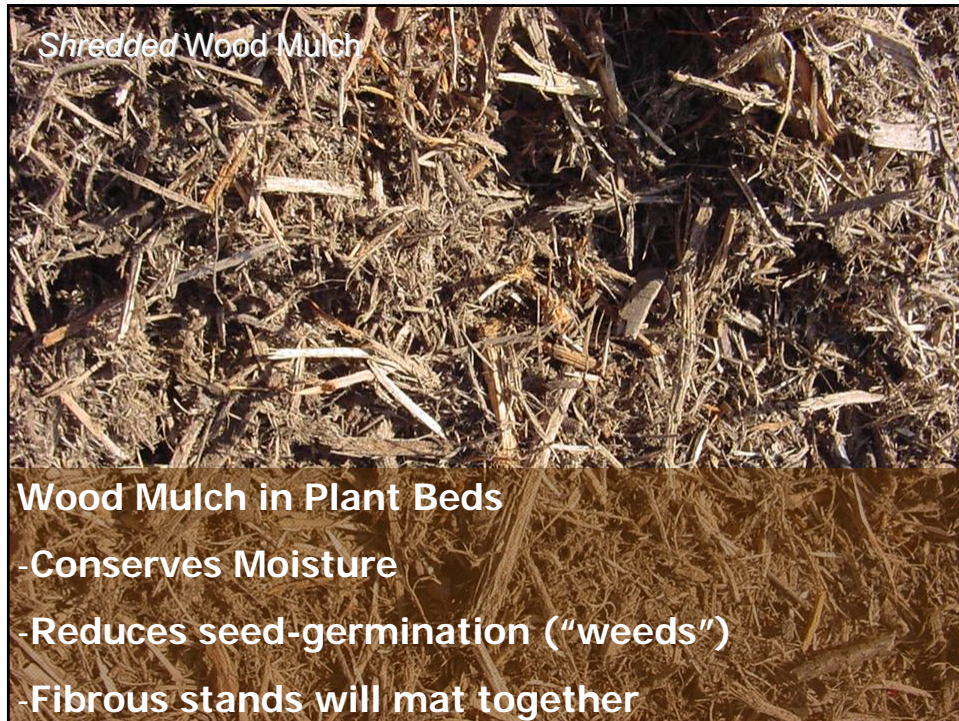












Thompson Lake Park

Raingarden, Shoreland Buffer & Bio-Swale



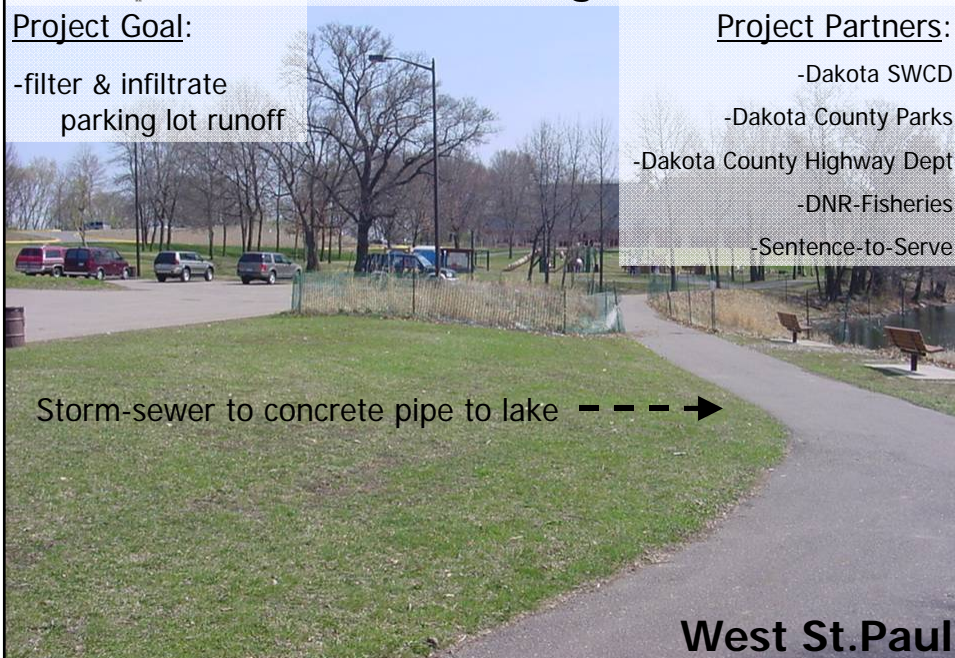
Thompson Lake Park Raingarden

Project Goal:

- filter & infiltrate parking lot runoff

Project Partners:

- Dakota SWCD
- Dakota County Parks
- Dakota County Highway Dept
- DNR-Fisheries
- Sentence-to-Serve



Note: **NO Wheeled Equipment** in Excavation Area



Excavation: Dakota Co. Hwy Dept.

Soil Mix: NRG Recycling

Mulch: NRG Recycling

Plants: RCCF (\$1,500)

Labor (install): Dakota Co. Parks

Labor (planting): Sentence-to-Serve

West St. Paul



Placing Underdrain
(bored into existing concrete pipe)



